

## Perry 1

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### Initiating Events

G**Significance:** May 18, 2001

Identified By: Self Disclosing

Item Type: FIN Finding

**Incorrect torque applied to moisture separator reheater drain tank manway covers resulted in loss of condenser vacuum after a reactor scram.**

An unplanned manual scram on April 29, 2001 was complicated by a loss of condenser vacuum. The cause of the loss of main condenser vacuum was leaking manway covers on the moisture separator reheater (MSR) drain tanks. The manway covers had been worked on during the recent refueling outage (March 2001) and leaked during the event because incorrect torque values had been used during reassembly. This finding was of very low safety significance because the issue affected only the initiating event "transient without power conversion system available" and did not increase the likelihood of any other initiating events or impact any mitigation systems.

Inspection Report# : [2001008\(pdf\)](#)G**Significance:** Dec 31, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Use of an inadequate test procedure resulted in one safety relief valve unexpectedly opening during testing.**

As a result of an inadequate test procedure, one safety relief valve unexpectedly opened during testing on December 18, 2000. The procedure failed to provide instructions to reset the low low set logic before applying an input signal to the trip unit. A Non-Cited Violation was identified for the inadequate procedure. The finding was of very low safety significance because, although the issue increased the frequency of an initiating event, all mitigation systems were available during the event. The inspectors used the Perry-specific worksheets in the Phase 2 Significance Determination Process (SDP) analysis to assess the safety significance of the issue.

Inspection Report# : [2000014\(pdf\)](#)G**Significance:** Dec 29, 2001

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

**PROCEDURE FOR REACTOR VESSEL LEVEL NOT FOLLOWED**

The inspectors identified a Non-Cited Violation for failure to follow procedures for controlling reactor vessel level within the required band. This issue was determined to be of very low safety significance because all mitigating systems remained available and no pressure or temperature limits were exceeded.

Inspection Report# : [2001015\(pdf\)](#)

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### Mitigating Systems

G**Significance:** Jun 30, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**Design Control of Modification to EDG Dampers**

The licensee's failure to properly control the design, manufacture, and installation of a modification to the emergency diesel generator ventilation system was self-revealed during post-maintenance testing. One damper failed and other dampers showed evidence of degradation. A Non-Cited Violation was identified for inadequate design control. The finding was of very low safety significance because, although supporting equipment for a mitigating system was failed or degraded, the allowed outage time for the mitigating system was not exceeded. The inspectors used the Phase 1 worksheet to assess the safety significance of the issue.

Inspection Report# : [2001009\(pdf\)](#)

G**Significance:** Feb 24, 2001

Identified By: NRC

Item Type: FIN Finding

**Inadequate engineering review for the Inclined Fuel Transfer System**

As a result of inadequate engineering reviews, the inventory in the suppression pool makeup system was potentially impacted when the inclined fuel transfer system blind flange was removed at power. This issue was reported to the NRC as LER 50-440/2000-001. The finding was of very low safety significance because, although the issue potentially impacted a mitigating system, the duration was small and there was a nonsafety-related valve in the system that maintained the water inventory.

Inspection Report# : [2001002\(pdf\)](#)**Significance:** N/A Nov 15, 2000

Identified By: NRC

Item Type: FIN Finding

**Supplemental Inspection for Safety System Unavailability - Heat Removal System Performance Indicator**

This supplemental inspection was conducted by the NRC to assess the licensee's evaluation associated with the white performance indicator (PI) for Safety System Unavailability, Heat Removal System for 2nd Quarter, 2000. The inspection was conducted by the Senior Resident Inspector. During this supplemental inspection, which was conducted in accordance with Inspection Procedure 95001, the inspector concluded that the licensee conducted an adequate evaluation of the reactor core isolation cooling (RCIC) system unavailability time that resulted in the white PI, that the extent of condition was appropriately addressed, and that corrective actions were initiated to prevent recurrence of this issue. During the 3rd Quarter, 2000, the PI data for the RCIC system returned to the green band. No findings were identified during this inspection.

Inspection Report# : [2000013\(pdf\)](#)**Significance:** N/A Nov 02, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to update procedures**

The team identified that Attachment 2 of procedure ONI-P54, "Off-Normal Instruction - Fire," Revision 3, did not include potential fire impacts upon selected RHR valves in Room 1CC-3a and CC-2a, despite the fact that such potential impacts were identified in the safe shutdown capability report (SSCR). Failure to update procedure ONI-054, in a timely manner, to include information used to alert operators as to which components could be potentially impacted by a fire is considered a nonconforming condition and is an example of a violation of Perry's license condition (Section 1R05.1).

Inspection Report# : [2000010\(pdf\)](#)G**Significance:** Nov 02, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to address extended inoperability of the control room sub floor CO2 system.**

The team determined that the licensee failed to promptly address extended inoperability of the control room subfloor CO2 system. This was a violation of the facilities license condition. The CO2 system inoperability resulted in an extended degradation of the manual fire fighting capability, one of the defense-in-depth elements for fire protection, for the control room (Section 1R05.12).

Inspection Report# : [2000010\(pdf\)](#)G**Significance:** Aug 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to promptly correct a degraded emergency closed cooling system motor-operated valve**

Green. The inspectors identified a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," concerning the failure of licensee personnel to take prompt corrective actions after testing showed significant degradation in seating torque for an emergency closed cooling (ECC) system motor-operated valve. Although the condition was identified and documented by the licensee, corrective action was not taken to evaluate and address the condition for six months. The finding was of very low safety significance because the ECC system would remain functional even if the valve failed to close.

Inspection Report# : [2000009\(pdf\)](#)G**Significance:** Jul 16, 2000

Identified By: NRC

Item Type: FIN Finding

**Failure to properly implement the on-line risk assessment for a Division 1 maintenance outage.**

Green. While reviewing the licensee's implementation of the on-line risk assessment for a Division I outage, the inspectors identified that the licensee failed to properly implement the on-line risk assessment for a Division I outage. Specifically, control room operators placed the reactor core isolation cooling (RCIC) system in a secured status rather than in standby readiness as was planned in the risk assessment. This resulted in the RCIC system being unavailable for a station blackout event without operator action. The issue was considered to be of very low safety significance because it resulted in only slightly higher plant risk than originally planned and other mitigating systems were available during the outage.

Inspection Report# : [2000008\(pdf\)](#)

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**Significance:** Nov 18, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **INADEQUATE PROCEDURES FOR SLUICE GATE MAINTENANCE**

The licensee failed to have procedures appropriate to the circumstances to prescribe maintenance on the emergency service water sluice gates. As a result, all three trains of emergency service water were rendered inoperable for the periods of time that the gates were disabled in the open position. This was considered to be a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V. This issue was determined to be of very low safety significance due to the availability of the nonsafety-related service water system and credit for manual operator action, either of which would fully mitigate the adverse effects of the open sluice gates.

Inspection Report# : [2001013\(pdf\)](#)

## **Barrier Integrity**

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**Significance:** Dec 29, 2001

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

#### **INOPERABLE CONTAINMENT ISOLATION VALVE**

The inspectors identified a Non-Cited Violation for failure to follow procedures for invoking a Technical Specification (TS) when a containment isolation valve failed to automatically close upon receipt of an isolation signal. The failure of the valve to automatically close was not made known to the oncoming shift crew and as a result, the operability of the valve was unknown for approximately 14 hours. This finding was determined to be of very low safety significance because the redundant isolation valve remained operable and the actual duration did not exceed allowable times per TS.

Inspection Report# : [2001015\(pdf\)](#)

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**Significance:** May 15, 2000

Identified By: Licensee

Item Type: FIN Finding

#### **Both trains of annulus exhaust gas treatment system inoperable.**

Green. The licensee identified that both trains of the annulus exhaust gas treatment system were inoperable at the same time. The licensee entered Technical Specification 3.0.3. The condition was restored within approximately four hours. This issue was determined to have very low risk significance because the system inoperability has minimal impact on large early release frequency (LERF).

Inspection Report# : [2000003\(pdf\)](#)

## **Emergency Preparedness**

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**Significance:** Feb 17, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Failure to Follow Procedures for Maintaining Electrical Separation Criteria**

Inspection Report# : [2001016\(pdf\)](#)

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## Occupational Radiation Safety



**Significance:** Feb 20, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure To Adequately Barricade A Locked High Radiation Area**

On 2/20/01 two maintenance workers were assigned to a job in the steam tunnel pit. One worker left and locked the other worker (with his knowledge) in the area. The worker who left the area lost the Locked High Radiation Area gate key and reported this to radiation protection. An RP technician directed the worker inside the LHRA to leave by climbing over the waist high gate. The area was also defined by a safety railing which could easily be climbed through. The locked gate and safety railing did not constitute an adequate barrier to preclude unauthorized entry. In a second example, a traversing incore probe area did not have an adequate barrier as the concrete wall that formed part of the barrier had an opening large enough to crawl through.

Inspection Report# : [2001006\(pdf\)](#)

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## Public Radiation Safety

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## Physical Protection

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## Miscellaneous

**Significance:** N/A Aug 04, 2000

Identified By: NRC

Item Type: FIN Finding

### **Effectiveness of Problem Identification and Resolution**

The inspectors concluded that the licensee effectively identified and corrected plant problems. The problem identification threshold within the condition report process was generally low, although a few safety-related equipment problems were not initially entered into the condition report system until prompted by the NRC, in part due to the lack of a well-defined threshold for initiating condition reports. Issues were prioritized and evaluated properly, according to the significance of the problem. Operability and reportability evaluations were normally completed as required. However, procedural requirements for control room personnel to evaluate operability and reportability aspects of issues in condition reports were not always followed. Corrective actions were normally timely and effective in preventing recurrence of problems. Audits and self-assessments were good evaluations and identified issues for the licensee to resolve. Plant staff acknowledged a responsibility to identify and report safety issues.

Inspection Report# : [2000009\(pdf\)](#)

**Significance:** N/A Aug 04, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to follow procedure requirements for condition report review**

No Color. The inspectors identified a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, Drawings," concerning the failure of licensee personnel to always follow the procedural requirements for control room personnel to review condition reports involving plant equipment problems. Since this finding did not affect a cornerstone of safety, it was not assessed with the Significance Determination Process, and was not assigned a color.

Inspection Report# : [2000009\(pdf\)](#)

**Significance:** SL-III Dec 31, 2001

Identified By: NRC

Item Type: VIO Violation

### **EMPLOYEE PROTECTION**

On May 31, 2001, the NRC Atomic Safety and Licensing Board issued a Memorandum and Order Approving the Settlement Agreement and Terminating Proceeding between the NRC and FirstEnergy Nuclear Operating Company (EA-99-012). The agreement provided for an \$80,000 civil monetary penalty based on a Severity Level III Violation of 10 CFR 50.7.

Inspection Report# : [2001015\(pdf\)](#)

**Significance:** N/A Aug 22, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**Operators failed to perform a TS required surveillance to record the overlap data between the SRM and the IRM prior to withdrawing the SRMs from the core.**

Technical Specification 3.3.1.1.6 requires that the licensee verify the source range monitor (SRM) and intermediate range monitor (IRM) channel overlap prior to withdrawing the SRMs from the fully inserted position. Technical Specification 5.4.1 requires, in part, that written procedures/instructions shall be established, implemented and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Appendix A of Regulatory Guide 1.33, Revision 2, February 1978, specifies hot standby to minimum load (nuclear startup) as an example of a general plant operating procedure. During the plant startup on July 29, 2001, operators failed to perform the TS required surveillance in that they failed to record the overlap data between the SRM and the IRM prior to withdrawing the SRMs from the core as required by procedure IOI-1, Cold Startup.

Inspection Report# : [2001010\(pdf\)](#)

**Significance:** N/A Jul 27, 2001

Identified By: NRC

Item Type: FIN Finding

**Problem Identification and Resolution Inspection Results**

The team concluded that the licensee effectively identified, evaluated, and corrected plant problems. Problem identification was determined to be effective based on a low condition report initiation threshold. Licensee audits and assessments identified issues similar to NRC observations.

Formal root cause evaluations were thorough. Corrective actions specified were appropriate based on the identified causes and were effective in preventing recurrence of significant conditions adverse to quality. Plant staff willingness to identify safety issues and a low threshold for initiating condition reports supported a safety conscious work environment. However, room for improvement in the areas of evaluation of issues and corrective actions still exists. Some evaluations could have been more rigorous. Extent of condition reviews could be broader in scope. Several equipment failure problems could have been assigned a more in-depth evaluation method. A few equipment related condition reports were not immediately reviewed by licensed operators. Operators could benefit from Generic Letter 91-18 operability guidance training to ensure accurate operability determinations.

Inspection Report# : [2001011\(pdf\)](#)

Last modified : March 27, 2002